

# FY13 Carbon Capture Peer Review



**Sheraton Station Square  
Pittsburgh, PA  
March 11-15, 2013**

## AGENDA

### Monday, March 11, 2013 – Waterfront Room

- 7:00 – 8:00 a.m.      **Registration – Admiral Foyer**
- 8:00 – 9:30 a.m.      **Peer Review Panel Kick Off Meeting**  
Open to National Energy Technology Laboratory (NETL) and American Institute of Chemical Engineers (AIChE) staff only
- Review of AIChE Process – June Wispelwey, AIChE
  - Role of Panel Chair – John C. Tao, AIChE
  - Role of NETL – José Figueroa, NETL
  - Meeting logistics/completion of forms – Justin Strock/Nicole Ryan/Dave Wildman, LTI
- 9:30 – 10:15 a.m.      **Overview Open to NETL and AIChE staff only**
- Carbon Capture Technology Manager – Shailesh Vora, NETL
- 10:15 – 10:30 a.m.      **BREAK**
- 10:30 – 11:15 a.m.      **01 - Project # FE0007466** – CO<sub>2</sub> Binding Organic Liquids Gas Capture with Polarity Swing Assisted Regeneration –  
*David J. Heldebrant, Battelle Memorial Institute*
- 11:15 – 11:45 a.m.      Q&A
- 11:45 – 12:25 p.m.      Discussion
- 12:25 – 12:35 p.m.      Evaluation entry
- 12:35 – 1:35 p.m.      **Lunch (on your own)**
- 1:35 – 2:20 p.m.      **02 - Project # FE0005799** – Ion Novel Solvent System for CO<sub>2</sub> Capture –  
*Alfred "Buz" Brown, ION Engineering, LLC*
- 2:20 – 2:50 p.m.      Q&A
- 2:50 – 3:30 p.m.      Discussion
- 3:30 – 3:40 p.m.      Evaluation entry
- 3:40 – 3:55 p.m.      **BREAK**

## Monday, March 11, 2013 – Waterfront Room

- 3:55 – 4:40 p.m.      **03 - Project # FE0004228** – Advanced Low Energy Enzyme Catalyzed Solvent for CO<sub>2</sub> Capture –  
*John Reardon and Alex Zaks, Akermin, Inc.*
- 4:40 – 5:10 p.m.      Q&A
- 5:10 – 5:50 p.m.      Discussion
- 5:50 – 6:00 p.m.      Evaluation entry

## Tuesday, March 12, 2013 – Waterfront Room

- 7:00 – 8:00 a.m.      **Registration – Admiral Foyer**
- 8:00 – 8:45 a.m.      **04 - Project # ORD-2012.01.00 Task 4** – Pre-Combustion Membranes –  
*David Hopkinson, National Energy Technology Laboratory*
- 8:45 – 9:15 a.m.      Q&A
- 9:15 – 9:55 a.m.      Discussion
- 9:55 – 10:05 a.m.      Evaluation entry
- 10:05 – 10:20 a.m.      **BREAK**
- 10:20 – 11:05 a.m.      **05 - Project # FE0007528** – Carbon Absorber Retrofit Equipment (CARE) –  
*Andy Awtry, Neumann Systems Group, Inc.*
- 11:05 – 11:35 a.m.      Q&A
- 11:35 – 12:15 p.m.      Discussion
- 12:15 – 12:25 p.m.      Evaluation entry
- 12:25 – 1:25 p.m.      **Lunch (on your own)**
- 1:25 – 2:10 p.m.      **06 - Project # FE0007395** – Application of a Heat Integrated Post-Combustion Carbon Dioxide  
Capture System with Hitachi Advanced Solvent into Existing Coal-Fired Power Plant –  
*Kunlei Liu, University of Kentucky*
- 2:10 – 2:40 p.m.      Q&A
- 2:40 – 3:20 p.m.      Discussion
- 3:20 – 3:30 p.m.      Evaluation entry
- 3:30 – 3:45 p.m.      **BREAK**
- 3:45 – 4:30 p.m.      **07 - Project # FE0007453** – Slipstream Pilot-Scale Demonstration of a Novel Amine Based Post-  
Combustion Process Technology for CO<sub>2</sub> Capture from Coal-Fired Power Plant Flue Gas –  
*Krish R. Krishnamurthy, Linde, LLC*
- 4:30 – 5:00 p.m.      Q&A
- 5:00 – 5:40 p.m.      Discussion
- 5:40 – 5:50 p.m.      Evaluation entry

## Wednesday, March 13, 2013 – Waterfront Room

- 7:00 – 8:00 a.m.      **Registration – Admiral Foyer**
- 8:00 – 8:45 a.m.      **08 - Project # FE0007948** – Novel Sorption-Based CO<sub>2</sub> Capture Process –  
*Ravi Jain, Innosepra, LLC*
- 8:45 – 9:15 a.m.      Q&A
- 9:15 – 9:55 a.m.      Discussion
- 9:55 – 10:05 a.m.     Evaluation entry
- 10:05 – 10:20 a.m.    **BREAK**
- 10:20 – 11:05 a.m.    **09 - Project # FE0007603** – Evaluation of Carbon Dioxide Capture from Existing Coal Fired Plants  
by Hybrid Sorption Using Solid Sorbents –  
*Steven A. Benson and Srivats Srinivasachar, University of North Dakota*
- 11:05 – 11:35 a.m.    Q&A
- 11:35 – 12:15 p.m.    Discussion
- 12:15 – 12:25 p.m.    Evaluation entry
- 12:25 – 1:25 p.m.     **Lunch (on your own)**
- 1:25 – 2:10 p.m.      **10 - Project # FE0007580** – Low Cost, High Capacity Regenerable Sorbent for Carbon Dioxide  
Capture from Existing Coal-Fired Power Plants –  
*Gökhan Alptekin, TDA Research, Inc.*
- 2:10 – 2:40 p.m.      Q&A
- 2:40 – 3:20 p.m.      Discussion
- 3:20 – 3:30 p.m.      Evaluation entry
- 3:30 – 3:45 p.m.      **BREAK**
- 3:45 – 4:30 p.m.      **11 - Project # FE0007707** – Bench-Scale Development of an Advanced Solid Sorbent-Based  
Carbon Capture Process for Coal-Fired Power Plants –  
*Thomas Nelson and Luke Coleman, Research Triangle Institute*
- 4:30 – 5:00 p.m.      Q&A
- 5:00 – 5:40 p.m.      Discussion
- 5:40 – 5:50 p.m.      Evaluation entry

## Thursday, March 14, 2013 – Waterfront Room

- 7:00 – 8:00 a.m.      **Registration – Admiral Foyer**
- 8:00 – 8:45 a.m.      **12 - Project # FE0004343** – Recovery Act: Evaluation of Solid Sorbents as a Retrofit Technology  
for CO<sub>2</sub> Capture –  
*Sharon Sjostrom, ADA-ES, Inc.*
- 8:45 – 9:15 a.m.      Q&A
- 9:15 – 9:55 a.m.      Discussion
- 9:55 – 10:05 a.m.     Evaluation entry
- 10:05 – 10:20 a.m.    **BREAK**

## Thursday, March 14, 2013 – Waterfront Room

- 10:20 – 11:05 a.m. **13 - Project # ORD-2012.01.00 Task 7** – Post-Combustion Membranes –  
*Erik Albenze, National Energy Technology Laboratory*
- 11:05 – 11:35 a.m. Q&A
- 11:35 – 12:15 p.m. Discussion
- 12:15 – 12:25 p.m. Evaluation entry
- 12:25 – 1:25 p.m. **Lunch (on your own)**
- 1:25 – 2:10 p.m. **14 - Project # FE0007634** – Electrochemical Membrane for Carbon Dioxide Capture and Power  
Generation –  
*Hossein Ghezel-Ayagh, FuelCell Energy, Inc.*
- 2:10 – 2:40 p.m. Q&A
- 2:40 – 3:20 p.m. Discussion
- 3:20 – 3:30 p.m. Evaluation entry
- 3:30 – 3:45 p.m. **BREAK**
- 3:45 – 4:30 p.m. **15 - Project # FE0005795** – Recovery Act: Slipstream Testing of a Membrane CO<sub>2</sub> Capture  
Process for Existing Coal-Fired Power Plants –  
*Tim Merkel, Membrane Technology & Research, Inc.*
- 4:30 – 5:00 p.m. Q&A
- 5:00 – 5:40 p.m. Discussion
- 5:40 – 5:50 p.m. Evaluation entry

## Friday, March 15, 2013 – Waterfront Room

- 7:00 – 8:00 a.m. **Registration – Admiral Foyer**
- 8:00 – 8:45 a.m. **16 - Project # FE-10-002** – High-Temperature Polymer-Based Membrane Systems for Pre-  
Combustion CO<sub>2</sub> Capture –  
*Kathryn A. Berchtold, Los Alamos National Laboratory*
- 8:45 – 9:15 a.m. Q&A
- 9:15 – 9:55 a.m. Discussion
- 9:55 – 10:05 a.m. Evaluation entry
- 10:05 – 10:20 a.m. **BREAK**
- 10:20 – 12:20 p.m. **Meeting Wrap-up Session**

